

BASIS OF PLAN

THIS SITE PLAN IS BASED ON THE ALTA LAND TITLE SURVEY PREPARED BY BARGHAUSEN CONSULTING ENGINEERS, INC. (DATED AUGUST 9, 2022). PROPOSED SITE IMPROVEMENTS WERE PROVIDED BY MACKENZIE ARCHITECTS (DATED 11-30-2023).

THE EXISTING CULTURAL AND TOPOGRAPHIC DATA SHOWN ON THESE DRAWINGS HAS BEEN PREPARED, IN PART, BASED UPON INFORMATION FURNISHED BY OTHERS. WHILE THIS INFORMATION IS BELIEVED TO BE RELIABLE, BCE, INC. CANNOT ENSURE ACCURACY AND THUS IS NOT RESPONSIBLE FOR THE ACCURACY OF THAT INFORMATION OR FOR ANY ERRORS OR OMISSIONS WHICH MAY HAVE BEEN INCORPORATED INTO THESE DRAWINGS AS A RESULT.

IT IS THE CONTRACTOR'S RESPONSIBILITY TO COORDINATE WITH THE OWNER TO HAVE ALL IMPROVEMENTS FIELD VERIFIED PRIOR TO CONSTRUCTION. DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF BARGHAUSEN CONSULTING ENGINEERS, INC. PRIOR TO WORK.

SURVEY INFORMATION

TITLE REPORT INFORMATION

TITLE COMMITMENT: ALL TITLE INFORMATION SHOWN ON THIS MAP, INCLUDING APPURTENANT EASEMENTS AND ADJOINING DEEDS FOR UNPLATTED LOTS, IF ANY, HAS BEEN EXTRACTED FROM FIRST AMERICAN TITLE INSURANCE COMPANY ALTA COMMITMENT NOS-1103990-0412, DATED JUNE 3, 2022 AT 7:30 AM. IN PREPARING THIS MAP, BARGHAUSEN CONSULTING ENGINEERS, INC. HAS CONDUCTED NO INDEPENDENT TITLE SEARCH NOR IS BARGHAUSEN CONSULTING ENGINEERS, INC. AWARE OF ANY TITLE ISSUES AFFECTING THE SURVEYED PROPERTY OTHER THAN THOSE SHOWN ON THE MAP AND DISCLOSED BY SAID COMMITMENT. BARGHAUSEN CONSULTING ENGINEERS, INC. HAS RELIED WHOLLY ON SAID TITLE COMPANY'S REPRESENTATIONS OF THE TITLE'S CONDITION TO PREPARE THIS SURVEY AND THEREFORE BARGHAUSEN CONSULTING ENGINEERS, INC. QUALIFIES THE MAP'S ACCURACY AND COMPLETENESS TO THAT EXTENT.

LEGAL DESCRIPTION (PER ABOVE REFERENCED TITLE REPORT)

PARCEL "A" THAT PORTION OF BLOCKS 34 TO 37, INCLUSIVE, OF REPLAT OF A PART OF FRANK R. SPINNING'S FIRST ADDITION TO THE TOWN OF PUYALLUP, PIERCE COUNTY, WASHINGTON, ACCORDING TO PLAT RECORDED IN BOOK 6 OF PLATS AT PAGE(S) 91, LYING NORTHERLY OF THE NORTHERN PACIFIC RAILWAY COMPANY RIGHT OF WAY, IN PUYALLUP, PIERCE COUNTY, WASHINGTON.

TOGETHER WITH THE SOUTH 30 FEET OF VACATED PIONEER AVENUE ABUTTING BLOCKS 34 AND 35 AS VACATED BY CITY OF PUYALLUP ORDINANCE NO. 211 RECORDED FEBRUARY 14, 1902 UNDER AUDITOR'S NO. 146161.

PARCEL "B" A PARCEL OF LAND SITUATED WITHIN THE SOUTHEAST QUARTER OF SECTION 27, TOWNSHIP 20 NORTH, RANGE 4 EAST OF THE WILLAMETTE MERIDIAN, IN PIERCE COUNTY, WASHINGTON, DESCRIBED AS FOLLOWS:

BEGINNING AT THE SOUTHEAST CORNER OF BLOCK 33 OF REPLAT OF A PART OF FRANK R. SPINNING'S FIRST ADDITION TO THE TOWN OF PUYALLUP, PIERCE COUNTY, WASHINGTON, ACCORDING TO PLAT RECORDED IN BOOK 6 OF PLATS AT PAGE 91; THENCE NORTH 00°50' WEST 28.58 FEET ALONG THE EAST LINE OF SAID BLOCK 33; THENCE SOUTH 14°18'45" WEST 27.61 FEET TO A POINT ON THE SOUTH LINE OF SAID BLOCK 33; THENCE SOUTH 75°49' EAST 7.47 FEET ALONG SAID SOUTH LINE TO THE POINT OF BEGINNING, IN PUYALLUP, PIERCE COUNTY, WASHINGTON.

PARCEL "C" THAT PORTION OF THE SOUTHEAST OF SECTION 27, TOWNSHIP 20 NORTH, RANGE 4 EAST OF THE WILLAMETTE MERIDIAN, IN PIERCE COUNTY, WASHINGTON, DESCRIBED AS FOLLOWS:

COMMENCING AT THE SECTION CORNER COMMON TO SECTIONS 26, 27, 34 AND 35, ALL IN SAID TOWNSHIP 20 NORTH, RANGE 4 EAST; THENCE NORTHERLY ALONG THE SECTION LINE COMMON TO SAID SECTIONS 26 AND 27, A DISTANCE OF 1578.0 FEET, MORE OR LESS, TO THE POINT OF INTERSECTION WITH A LINE DRAWN PARALLEL WITH AND DISTANT 51.13 FEET NORTHERLY OF, AS MEASURED AT RIGHT ANGLES TO, BURLINGTON NORTHERN RAILROAD COMPANY'S MAIN TRACK CENTERLINE, AS NOW LOCATED AND CONSTRUCTED; THENCE NORTHWESTERLY DEFLECTING 74°59' TO THE LEFT FROM SAID SECTION LINE, ALONG SAID LINE LYING 51.13 FEET NORTHERLY OF AND PARALLEL WITH SAID MAIN TRACK CENTERLINE, A DISTANCE OF 493.0 FEET, MORE OR LESS, TO THE POINT OF INTERSECTION WITH THE WEST RIGHT OF WAY LINE OF FIFTEENTH STREET SOUTHEAST, AS NOW LOCATED IN THE CITY OF PUYALLUP, WASHINGTON SAID POINT BEING THE TRUE POINT OF BEGINNING OF THE PARCEL TO BE DESCRIBED; THENCE CONTINUING NORTHWESTERLY ALONG SAID PARALLEL LINE, 920.0 FEET, MORE OR LESS, TO THE POINT OF INTERSECTION WITH A LINE DRAWN PARALLEL WITH AND DISTANT 8.50 FEET NORTHERLY OF, AS MEASURED AT RIGHT ANGLES TO, THE MOST NORTHERLY SPUR TRACT OF SAID BURLINGTON NORTHERN RAILROAD COMPANY, AS NOW LOCATED AND CONSTRUCTED; THENCE NORTHERLY, PARALLEL WITH THE WEST LINE OF BLOCK 32 OF REPLAT OF A PART OF FRANK R. SPINNING'S FIRST ADDITION TO THE TOWN OF PUYALLUP, ACCORDING TO PLAT RECORDED IN BOOK 6 OF PLATS AT PAGE 91, A DISTANCE OF 148.0 FEET; THENCE NORTHWESTERLY, PARALLEL WITH SAID LINE LYING 51.13 FEET NORTHERLY OF SAID RAILROAD COMPANY'S MAIN TRACK CENTERLINE, A DISTANCE OF 40.0 FEET; THENCE NORTHERLY, PARALLEL WITH SAID WEST LINE OF BLOCK 32, 106.0 FEET TO THE POINT OF INTERSECTION WITH A LINE DRAWN PARALLEL WITH AND DISTANT 300.0 FEET NORTHERLY OF, AS MEASURED AT RIGHT ANGLES TO, SAID MAIN TRACK CENTERLINE; THENCE EASTERLY ALONG SAID PARALLEL LINE, 946.0 FEET, MORE OR LESS, TO THE POINT OF INTERSECTION WITH THE WEST RIGHT OF WAY LINE OF FIFTEENTH STREET SOUTHEAST; THENCE SOUTHERLY ALONG SAID WEST RIGHT OF WAY LINE TO THE TRUE POINT OF BEGINNING, IN PIERCE COUNTY, WASHINGTON.

HORIZONTAL DATUM

NAD 83/11 PER WSDOT PUBLISHED MONUMENTS. WSDOT CONTROL POINT "GP 27512-100" WAS HELD FOR POSITION, AND A LINE BETWEEN SAID POINT "GP 27512-100" AND CONTROL POINT "GP27512-18A2" WAS HELD FOR ROTATION, BEING SOUTH 38°23'07" WEST.

VERTICAL DATUM

NAVD88 VERTICAL CONTROL PUBLISHED BY WSDOT, POINT "GP 27512-100" WAS HELD FOR ELEVATION. BENCHMARK ELEVATION = 81.27'

SITE BENCHMARK

SET MAGNAIL & WASHER #49 IN THE SIDEWALK ON THE WEST SIDE OF 15TH STREET S.E. ELEVATION =55.16' (NAVD 88)

SOILS REPORT NOTES

1. THE FOLLOWING SOILS REPORTS/ASSESSMENTS WERE PREPARED FOR THE SITE: GEOTECHNICAL REPORT, PROJECT NO. T-8661 DATED: JAN 12TH 2022:

240 - 15TH STREET SE INDUSTRIAL  
240 - 15TH STREET SE  
PUYALLUP, WASHINGTON

PREPARED BY:  
TERRA ASSOCIATES, INC.  
12220 113TH AVENUE NE, STE. 130  
KIRKLAND, WASHINGTON 98034

2. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO ENSURE THAT ALL PROVISIONS OF THE SOILS REPORT FOR THE SITE BE OBSERVED AND COMPLIED WITH DURING ALL PHASES OF THE SITE PREPARATION, GRADING OPERATIONS, AND PAVING CONSTRUCTION.

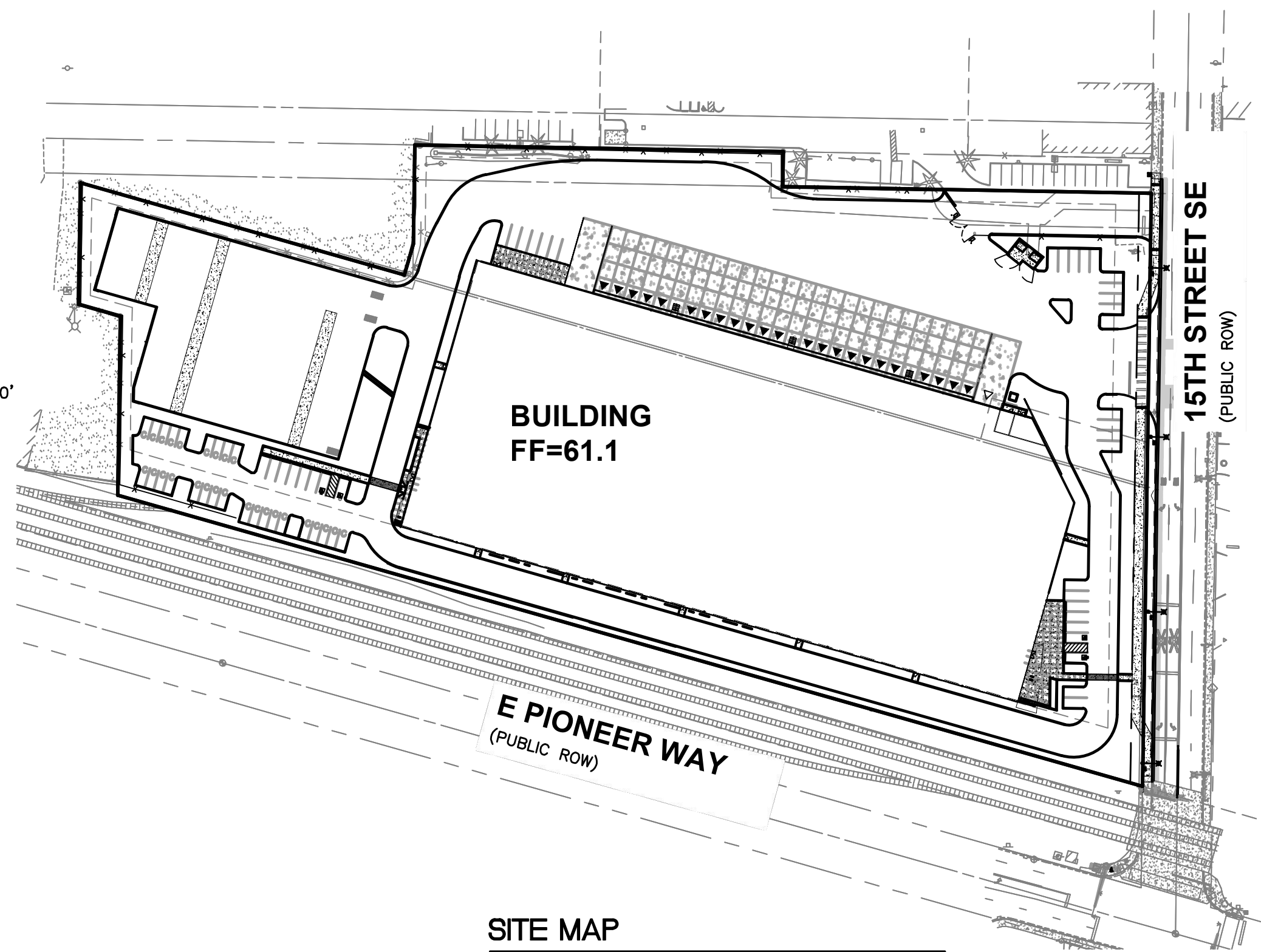
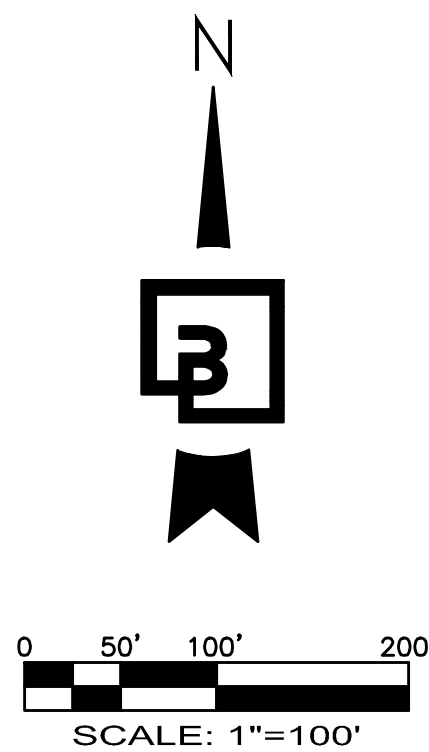
3. ANY PROVISIONS OF THE SOILS REPORT WHICH CONFLICT WITH INFORMATION SHOWN ELSEWHERE ON THESE DRAWINGS, OR WHICH REQUIRE FURTHER CLARIFICATION, SHALL BE BROUGHT TO THE ATTENTION OF BARGHAUSEN ENGINEERS.

4. A REPRESENTATIVE FOR THE SOILS ENGINEER SHALL BE AVAILABLE TO OBSERVE AND APPROVE THE EARTHWORK OPERATIONS AND TO VERIFY FIELD CONDITIONS AS WORK PROCEEDS. THE SOILS ENGINEER SHALL SUBMIT FIELD REPORTS CERTIFYING THAT THE METHODS AND MATERIALS OF THE EARTHWORK OPERATIONS WERE IN ACCORDANCE WITH THE RECOMMENDATION OF THE SOILS INVESTIGATION AND THAT THE WORK WAS PERFORMED TO THE SATISFACTION OF THE ENGINEER. THE CONTRACTOR SHALL MAKE ALL PROVISIONS FOR SOILS INSPECTIONS AS RECOMMENDED WITHIN SOILS REPORT AS A MINIMUM, THIS INCLUDES THE OBSERVATION OF THE FOLLOWING BY A SOILS ENGINEER: UTILITY TRENCH EXCAVATIONS, UTILITY PIPE BEDDING, SUBGRADE STABILITY, FOOTING SUBGRADE CONDITIONS, STRUCTURAL FILL OBSERVATIONS AND TESTING, SITE DRAINAGE MEASURES AND OBSERVATIONS, PAVEMENT SUBGRADE OBSERVATIONS, EROSION CONTROL, SITE STABILITY INCLUDING TEMPORARY AND PERMANENT SLOPES.

5. THE SOILS ENGINEER SHOULD BE NOTIFIED AT LEAST FIVE (5) WORKING DAYS PRIOR TO ANY SITE CLEARING OR GRADING.

PORTION OF SE QUARTER OF SEC 27, TWN 20 N, RGE. 4 E, W.M.  
CITY OF PUYALLUP, PIERCE COUNTY, WASHINGTON

COVER SHEET  
CIVIL PLANS



SITE MAP

1"=100'

INDEX OF SHEETS:  
CIVIL SET

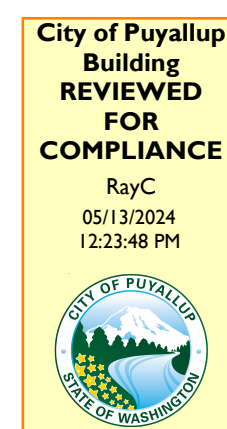
- C1 COVER SHEET
- C2 CONSTRUCTION NOTES
- C3 CIVIL TESC AND DEMOLITION PLAN
- C4 SITE PLAN
- C5 SITE PLAN
- C6 SITE PLAN
- C7 GRADING AND STORM DRAINAGE PLAN
- C8 GRADING AND STORM DRAINAGE PLAN
- C9 GRADING AND STORM DRAINAGE PLAN
- C10 GRADING DETAILS
- C11 GRADING DETAILS
- C12 VAULT DETAILS
- C13 VAULT DETAILS
- C14 WATER AND SANITARY SEWER PLAN
- C15 WATER AND SANITARY SEWER PLAN
- C16 WATER AND SANITARY SEWER PLAN
- C17 RIGHT-OF-WAY DEMOLITION PLAN
- C18 FRONTAGE IMPROVEMENT PLAN
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- C32 CONSTRUCTION DETAILS
- C33 CITY NOTES
- C34 FIRE LANE MARKING PLAN

ILLUMINATION SET

- 1 ILLUMINATION PLAN
- 2 ILLUMINATION DETAILS

See structural plans for construction details and special inspection requirements.

PRFO20240367



Approval of submitted plans is not an approval of omissions or oversight by this office or noncompliance with any applicable regulations of local government. The contractor is responsible for making sure that the building complies with all applicable building codes and regulations of the local government.

THE APPROVED CONSTRUCTION PLANS AND ALL ENGINEERING MUST BE POSTED ON THE JOB AT ALL INSPECTIONS IN A VISIBLE AND READILY ACCESSIBLE LOCATION. PRINT IN COLOR and to SCALE.

Building permit PRFO20240367 shall only be used for the construction of the stormwater vault. For all other work, refer to civil permit PRCCP20231096.

UTILITY CONFLICT NOTE:

CAUTION:

THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE LOCATION, DIMENSION, AND DEPTH OF ALL EXISTING UTILITIES WHETHER SHOWN ON THESE PLANS OR NOT BY POT-HOLING THE UTILITIES AND SURVEYING THE HORIZONTAL AND VERTICAL LOCATION PRIOR TO CONSTRUCTION. THIS SHALL INCLUDE CALLING UTILITY LOCATE @ 811 AND THEN POT-HOLING ALL OF THE EXISTING UTILITIES AT LOCATIONS OF NEW UTILITY CROSSINGS TO PHYSICALLY VERIFY WHETHER OR NOT CONFLICTS EXIST. LOCATIONS OF SAID UTILITIES AS SHOWN ON THESE PLANS ARE BASED UPON THE UNVERIFIED PUBLIC INFORMATION AND ARE SUBJECT TO VARIATION. IF CONFLICTS SHOULD OCCUR, THE CONTRACTOR SHALL CONSULT BARGHAUSEN CONSULTING ENGINEERS, INC. TO RESOLVE ALL PROBLEMS PRIOR TO PROCEEDING WITH CONSTRUCTION.

CONTRACTOR SHALL BE FULLY RESPONSIBLE FOR OBTAINING PERMITS FROM THE WASHINGTON STATE DEPARTMENT OF NATURAL RESOURCES FOR REMOVING AND REPLACING ALL SURVEY MONUMENTATION THAT MAY BE AFFECTED BY CONSTRUCTION ACTIVITY, PURSUANT TO WAC 332-120. APPLICATIONS MUST BE COMPLETED BY A REGISTERED LAND SURVEYOR. APPLICATIONS FOR PERMITS TO REMOVE MONUMENTS MAY BE OBTAINED FROM THE WASHINGTON STATE DEPARTMENT OF NATURAL RESOURCES, OR BY CONTACTING THEIR OFFICE BY TELEPHONE AT (360) 902-1190.

WASHINGTON STATE DEPARTMENT OF NATURAL RESOURCES  
PUBLIC LAND SURVEY OFFICE  
801 88th AVE S.E.  
OLYMPIA, WASHINGTON 98501-7019

UPON COMPLETION OF CONSTRUCTION, ALL MONUMENTS DISPLACED, REMOVED, OR DESTROYED SHALL BE REPLACED BY A REGISTERED LAND SURVEYOR, AT THE COST AND AT THE DIRECTION OF THE CONTRACTOR, PURSUANT TO THESE REGULATIONS. THE APPROPRIATE FORMS FOR REPLACEMENT OF SAID MONUMENTATION SHALL ALSO BE THE RESPONSIBILITY OF THE CONTRACTOR.

TAX PARCEL NUMBERS

7845000161, 7845000170, 0420274126

ZONING

ML - LIMITED MANUFACTURING

OWNER/APPLICANT

CREF3 PUYALLUP OWNER LLC  
11611 SAN VICENTE BLVD, 10TH FLOOR  
LOS ANGELES, CA 90049

CIVIL ENGINEERING CONSULTANT:

BARGHAUSEN CONSULTING ENGINEERS  
18215 72ND AVENUE SOUTH  
KENT, WA 98032  
(425) 251-6222  
(425) 251-8782 (FAX)  
JASON HUBBELL  
EMAIL: jhubbell@barghausen.com

SITE SURVEY CONSULTANT:

BARGHAUSEN CONSULTING ENGINEERS  
18215 72ND AVENUE SOUTH  
KENT, WA 98032  
(425) 251-6222  
(425) 251-8782 (FAX)  
RYAN LEE

PROJECT INFO:

TOTAL SITE AREA= 346,555 SF  
TOTAL IMPERVIOUS AREA= 289,069 SF (83.4%)  
TOTAL PERVIOUS AREA= 57,486 SF (16.6%)

UTILITIES/SERVICES

STORM/SEWER/WATER:  
CITY OF PUYALLUP WATER DIVISION  
1100 39TH AVE. SE  
PUYALLUP, WA 98374  
(253) 841-5505

POWER:  
PUGET SOUND ENERGY  
8001 SOUTH 212TH STREET  
KENT, WA 98032  
(253) 395-7065

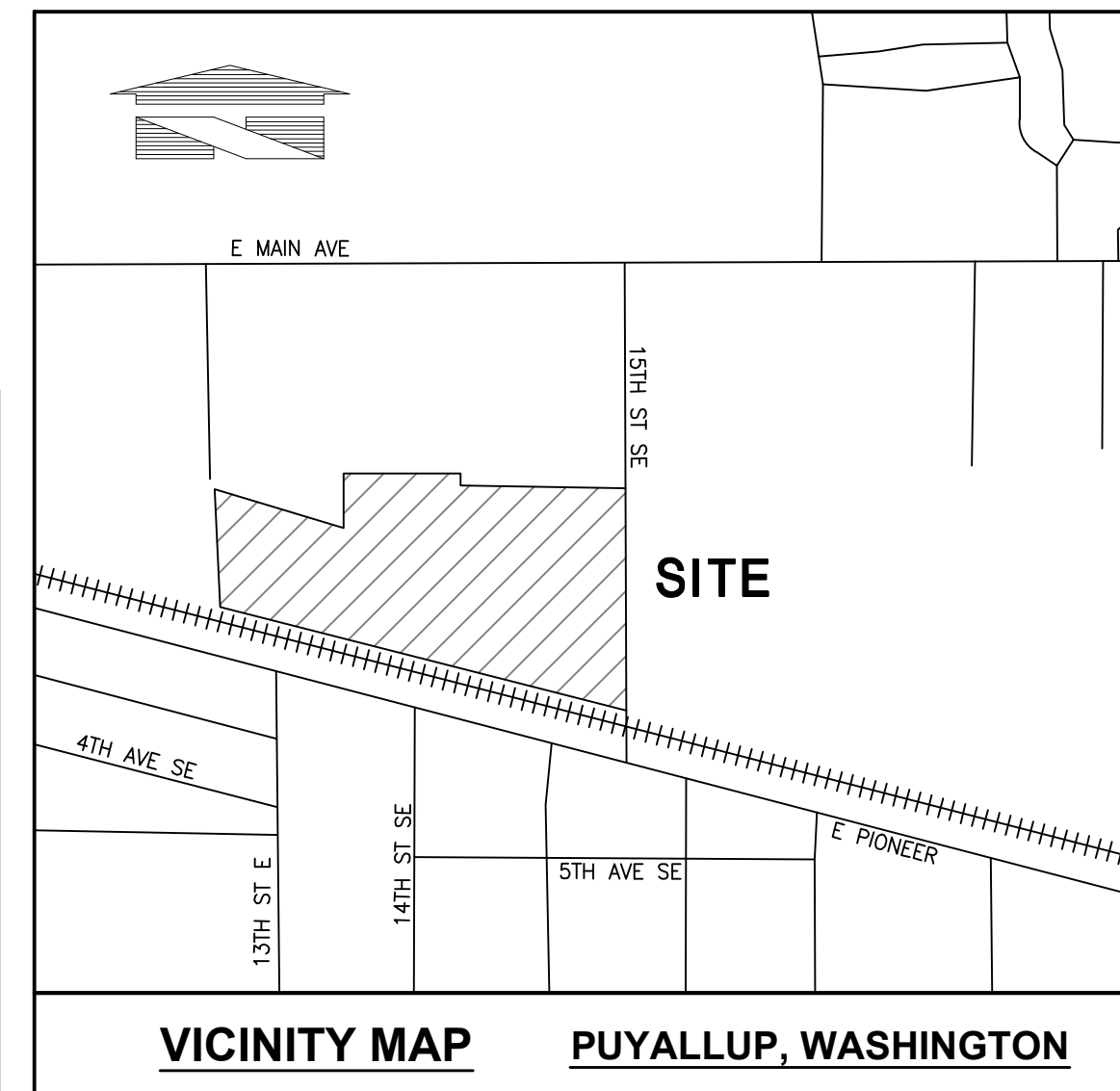
GAS:  
PUGET SOUND ENERGY  
8001 SOUTH 212TH STREET  
KENT, WA 98032  
(253) 395-7065

ESTIMATED EARTHWORK VOLUMES:

(FOR PERMITTING ONLY. NOT FOR BID PURPOSES)  
EARTHWORK, STRIPPING EXPORT = 0  
ON-SITE CUT = 7,000 CY  
ON-SITE FILL = 7,000 CY  
EARTHWORK, STRUCTURAL IMPORT = 000 CY

HORIZONTAL CONTROL / SURVEY NOTE:

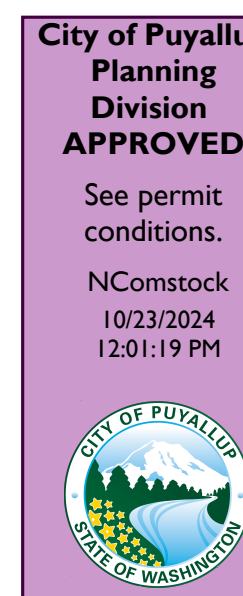
- 1. CONTRACTOR SHALL OBTAIN SERVICES OF A LICENSED LAND SURVEYOR TO STAKE HORIZONTAL AND VERTICAL CONTROL FOR ALL NEW IMPROVEMENTS. CONTRACTOR SHALL CONTACT BARGHAUSEN CONSULTING ENGINEERS, INC. TO OBTAIN ELECTRONIC CAD FILES FOR STAKING PURPOSES.
- 2. UNDERGROUND UTILITIES AND FEATURES DEPICTED HERON ARE BASED ON FIELD OBSERVATION, MARKINGS, DEVELOPMENT PLANS, AND/OR BEST AVAILABLE RECORD DOCUMENTS ONLY. CONTRACTOR SHALL FIELD VERIFY SIZE AND TYPE OF EXISTING UTILITIES PRIOR TO CONSTRUCTION. DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF BARGHAUSEN CONSULTING ENGINEERS, INC. PRIOR TO WORK.



VICINITY MAP PUYALLUP, WASHINGTON

SITE ADDRESS

240 15TH STREET SE  
PUYALLUP, WA 98372



APPROVED

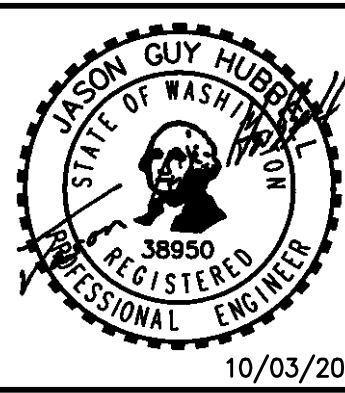
BY \_\_\_\_\_  
CITY OF PUYALLUP  
DEVELOPMENT ENGINEERING

DATE \_\_\_\_\_

NOTE: THIS APPROVAL IS VOID AFTER 180 DAYS FROM APPROVAL DATE. THE CITY WILL NOT BE RESPONSIBLE FOR ERRORS AND/OR OMISSIONS ON THESE PLANS. FIELD CONDITIONS MAY DICTATE CHANGES TO THESE PLANS AS DETERMINED BY THE DEVELOPMENT ENGINEERING MANAGER.

PRFO20240367  
COVER SHEET  
CIVIL PLANS  
FORTRESS - PUYALLUP

CREF3 PUYALLUP OWNER LLC  
11611 SAN VICENTE BLVD  
10TH FLOOR  
LOS ANGELES, CA 90049



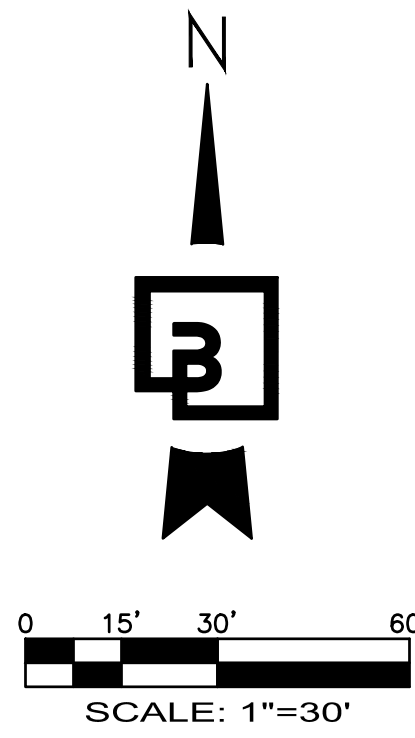
Scale: Horizontal 1"=100' Vertical N/A

Designed DL  
Drawn RDC  
Checked DL  
Approved JGH  
Date 8/23/23

Barghausen Consulting Engineers, Inc.  
18215 72nd Avenue South  
Kent, WA 98032  
425.251.6222  
barghausen.com

Job Number 22085  
Sheet C1 of 34

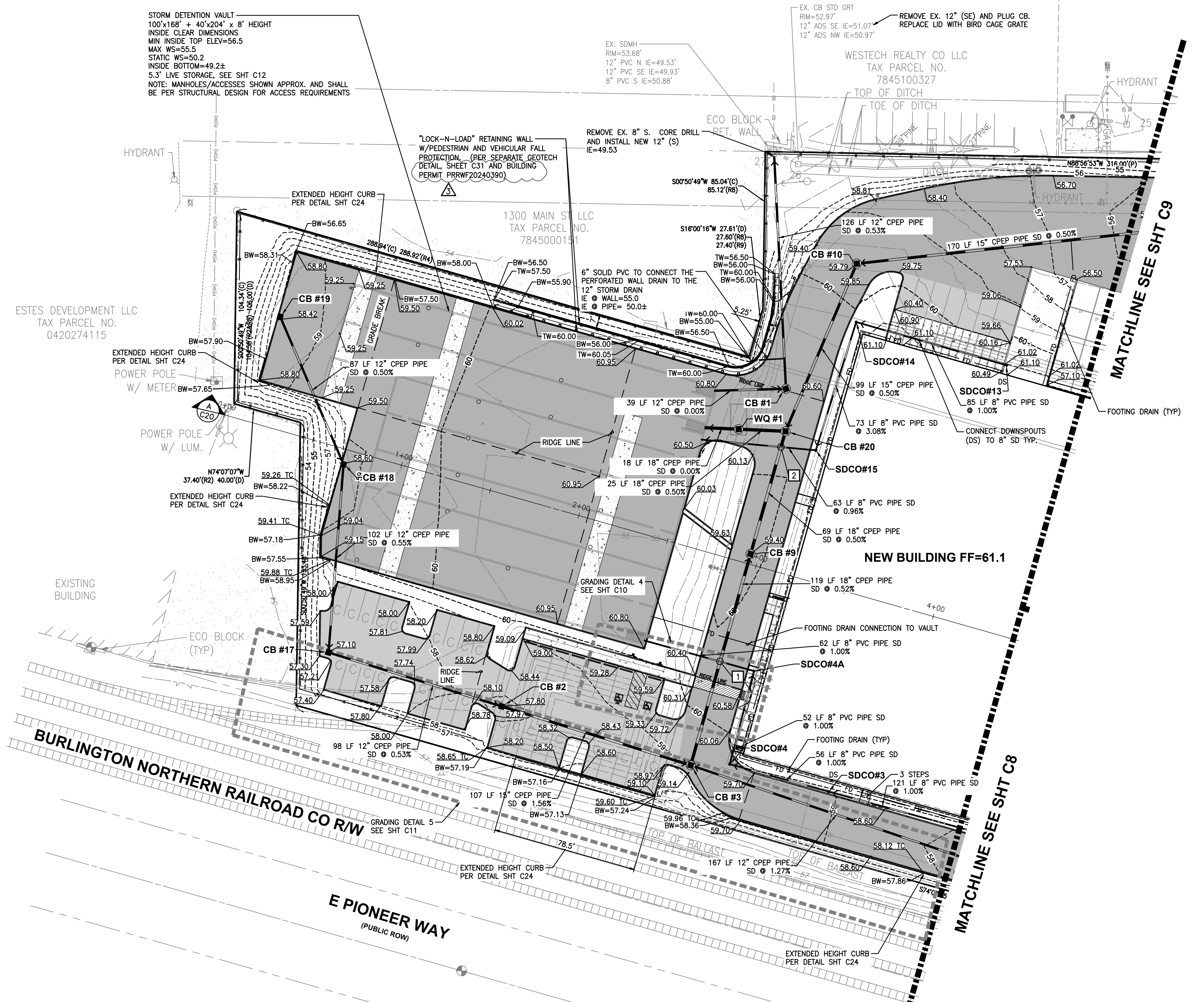
PORTION OF SE QUARTER OF SEC 27, TWN 20 N, RGE. 4 E, W.M.  
CITY OF PUYALLUP, PIERCE COUNTY, WASHINGTON  
**GRADING AND DRAINAGE PLAN**



STORM DETENTION VAULT  
100'x168' + 40'x204' x 8' HEIGHT  
INSIDE CLEAR DIMENSIONS  
MIN INSIDE TOP ELEV=56.5  
MAX WS=55.5  
STATIC WS=50.2  
INSIDE BOTTOM=49.2±  
5.3' LIVE STORAGE, SEE SHT C12  
NOTE: MANHOLES/ACCESSES SHOWN APPROX. AND SHALL BE PER STRUCTURAL DESIGN FOR ACCESS REQUIREMENTS

EX. CB STD GR  
RIM=52.97'  
12" ADS SE IE=51.07'  
12" ADS NW IE=50.97'

REMOVE EX. 12" (SE) AND PLUG CB.  
REPLACE LID WITH BIRD CAGE GRATE



**STORM CROSSING TABLE:**

- 1 UTILITY CROSSING  
IE 8" SD=53.54  
T/P 18" SD=53.1  
SEPARATION=0.44'
- 2 UTILITY CROSSING  
IE 8" SD=55.10  
T/P 18" SD=52.40  
SEPARATION=3.20'

**WALL NOTES:**

- (WALL DESIGN PER SEPARATE PLANS AND BUILDING PERMIT).
- WALL DESIGN NEEDS TO BE SUBMITTED TO THE OWNER AND THE ENGINEER/CITY FOR REVIEW AND APPROVAL.
  - WALL DESIGNS OVER 4- FEET HIGH REQUIRE A SEPARATE BUILDING PERMIT AND ENGINEERING DESIGN.
  - WALLS OVER 30-INCHES HIGH, WHERE TOP OF WALL IS ADJACENT TO PEDESTRIAN OR VEHICULAR PATHWAY(S), NEED TO INCLUDE PEDESTRIAN AND/OR VEHICULAR FALL PROTECTION. THE FALL PROTECTION SHALL BE DESIGNED, PERMITTED, PROVIDED BY, AND INSTALLED BY CONTRACTOR.
  - THE DIMENSIONS SHOWN ON THE PLAN ARE THE BASIS OF WALL PLACEMENT. DIMENSIONS ARE SHOWN TO THE FACE OF WALL AT THE EXPOSED GRADE. CONTRACTOR SHALL USE A CURRENT CAD FILE FROM BARGHAUSEN CONSULTING ENGINEERS, INC. TO STAKE THE FACE OF WALL LOCATION.
  - THE TYPE OF WALL CHOSEN WILL DETERMINE THE WALL WIDTH, BATTER, AND IF GEGRID IS NECESSARY.
  - THE WALL HEIGHT SHOWN ON THE PLANS IS AN ESTIMATED MAXIMUM HEIGHT. TOP OF WALL ELEVATIONS PROVIDED ARE TO THE TOP OF EXPOSED FACE OF WALL, NOT INCLUDING ANY PEDESTRIAN OR VEHICULAR BARRIER IF NECESSARY. BOTTOM OF WALL ELEVATIONS PROVIDED ARE TO THE BOTTOM OF THE EXPOSED FACE OF WALL (AND NOT TO WALL FOOTING). THE WALL ELEVATIONS PROVIDED ON THE PLANS ARE PROVIDED AT UNIFORM LOCATIONS AND DO NOT NECESSARILY REPRESENT ALL OF THE WALL ELEVATION CHANGES. WALL PROFILES ARE REQUIRED TO BE PART OF THE DESIGN/BUILD OR STRUCTURAL DESIGN PLANS. WALL PROFILES MAY RESULT IN HIGHER OVERALL WALL HEIGHTS.
  - COORDINATION BETWEEN WALL DESIGN AND THE CONSTRUCTION DRAWINGS NEEDS TO OCCUR PRIOR TO CONSTRUCTION TO CONFIRM WALL LOCATION IN PLAN VIEW, DRAINAGE REQUIREMENTS, ETC.
  - PROVIDE WALL FOOTING DRAIN CONNECTIONS TO STORM MAIN AT ALL PROPOSED WALLS.

CATCH BASINS	
CB #1, TYPE 2-54" CONTROL STRUCTURE W/SOLID LOCKING LID RIM=60.85 IE=50.20 (12" W) IE=50.20 (12" N)	
CB #2, TYPE 1, W/STANDARD GRATE RIM=57.80 IE=53.48 (12" W) IE=53.48 (15" E)	
CB #3, TYPE 2-48" W/STANDARD GRATE RIM=59.21 IE=51.80 (12" E) IE=51.80 (15" W)	
CB #9, TYPE 2-48" W/STANDARD GRATE RIM=59.40 IE=51.18 (18" S) IE=51.18 (18" N)	
CB #10, TYPE 2-48" W/STANDARD GRATE RIM=59.79 IE=51.32 (15" E) IE=51.32 (15" SW)	
CB #17, TYPE 1, W/STANDARD GRATE RIM=57.10 IE=54.00 (12" N) IE=54.00 (12" E)	
CB #18, TYPE 1, W/STANDARD GRATE RIM=58.63 IE=54.56 (12" NW) IE=54.56 (12" S)	
CB #19, TYPE 1, W/STANDARD GRATE RIM=55.00 IE=55.00 (12" SE)	
CB #20, TYPE 2-48" W/SOLID LOCKING LID RIM=60.35 IE=50.83 (15" NE) IE=50.83 (18" S) IE=50.83 (18" W)	
SDCO#3, RIM=59.49 IE=54.80 (8" E) IE=54.80 (8" W)	
SDCO#4, RIM=59.56 IE=54.24 (8" E) IE=54.24 (8" N)	
SDCO#4A, RIM=60.77 IE=53.72 (8" S) IE=53.72 (8" W)	
SDCO#13, RIM=61.03 IE=58.50 (8" W)	
SDCO#14, RIM=60.39 IE=57.65 (8" E) IE=57.65 (8" S)	
SDCO#15, RIM=60.75 IE=55.40 (8" N) IE=55.40 (8" W)	
WQ #1, BPU-8161B RIM=60.39 IE=50.70 (18" E) IE=50.20 (18" W)	

Revision  
1 10/03/24 DL DL By Cld. Appr.  
2 03/05/24 JSG JSG DL DL  
3 03/05/24 JSG JSG DL DL  
RESPONSE TO CITY COMMENTS, DATED APRIL 12, 2024  
RESPONSE TO CITY COMMENTS, DATED FEBRUARY 06, 2024

PRFO20240367

**GRADING AND DRAINAGE PLAN**

**FORTRESS - PUYALLUP**

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**Title:**

**CREF3 PUYALLUP OWNER LLC**  
11611 SAN VICENTE BLVD  
10TH FLOOR  
LOS ANGELES, CA 90049

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**For:**

Scale:  
Horizontal 1"=30'  
Vertical N/A

Designed DL  
Drawn RDC  
Checked DL  
Approved JGH  
Date 8/23/23

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**Barghausen Consulting Engineers, Inc.**  
18215 72nd Avenue South  
Kent, WA 98032  
425.251.6222 [barghausen.com](http://barghausen.com)

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**APPROVED**

BY \_\_\_\_\_  
CITY OF PUYALLUP  
DEVELOPMENT ENGINEERING

DATE \_\_\_\_\_

NOTE: THIS APPROVAL IS VOID AFTER 180 DAYS FROM APPROVAL DATE.  
THE CITY WILL NOT BE RESPONSIBLE FOR ERRORS AND/OR OMISSIONS ON THESE PLANS.  
FIELD CONDITIONS MAY DICTATE CHANGES TO THESE PLANS AS DETERMINED BY THE DEVELOPMENT ENGINEERING MANAGER.

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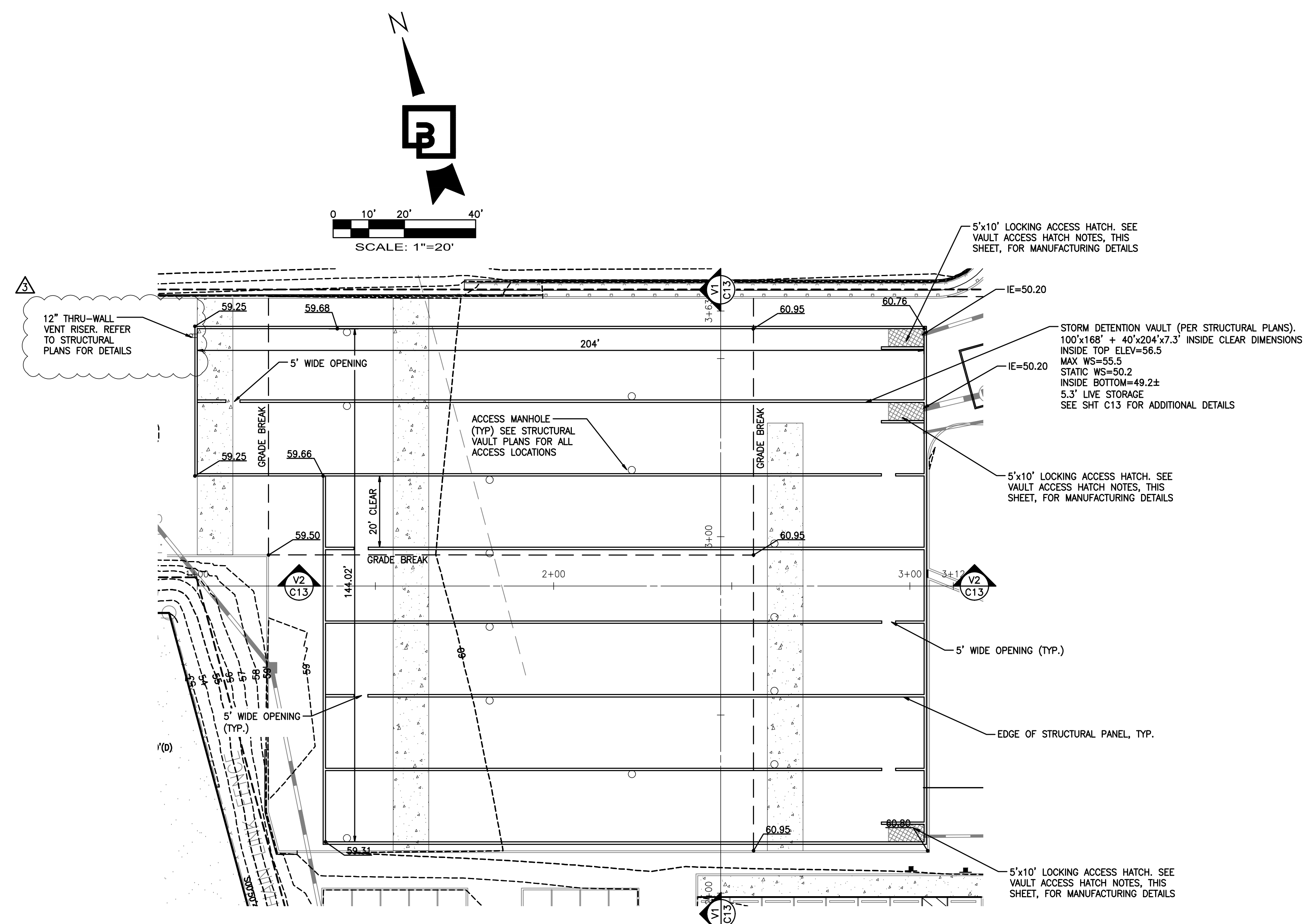
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Sheet **C7** of **34**

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# VAULT DETAILS

PRFO20240367



**VAULT DETAIL 1**  
1"=20'

### VAULT NOTES:

1. VENTILATION PIPES (MIN. 12" DIAMETER OR EQUIVALENT) SHALL BE PROVIDED IN ALL CORNERS OF THE VAULT TO ALLOW FOR VENTILATION PRIOR TO ENTRY OF MAINTENANCE PERSONNEL INTO VAULT. VENTILATION PIPES ENTER THROUGH THE VAULT LID. PROVIDE LOCKING LIDS FLUSH WITH FINISH GRADE USING CLEANOUT.
2. WHERE PIPES ENTER AND LEAVE THE VAULT BELOW THE DESIGNED MAX WATER SURFACE, THEY SHALL BE SEALED USING A NON-POROUS, NON-SHRINKING GROUT.
3. ACCESS LOCATIONS, VAULT DESIGN AND WALL OPENINGS ARE PER THE STRUCTURAL DRAWING AND THE LOCATIONS ARE SHOWN FOR REFERENCE ONLY.
4. INSTALL CONFINED SPACE PLACARD AT ALL ACCESS POINTS TO THE VAULT.
5. CONTRACTOR SHALL SUBMIT MATERIAL SUBMITTALS FOR REVIEW AND APPROVAL PRIOR TO CONSTRUCTION.

### VAULT ACCESS HATCH NOTES:

1. PROVIDE H-20 (MIN) TRAFFIC RATED 5'x10' LOCKING, PERSONAL 2-DOOR SOLID ACCESS HATCH.
2. FRAME AND HATCH COVER SHALL BE DESIGNED FOR 150 PSF LIVE LOAD.
3. A SPRING-ASSISTED LIFT WITH HOLD-OPEN FEATURE TORSION BARS SHALL BE INSTALLED. AUTOMATIC HOLD-OPEN ARM WITH GRIP HANDLE RELEASE SHALL BE ADDED.
4. POLYPROPYLENE RUNGS OR LADDER SHALL BE INSTALLED EXTENDING FROM THE HATCH TO THE BOTTOM OF THE VAULT.
5. A LADDER-UP MECHANISM SHALL BE INSTALLED CENTERED OVER THE RUNGS OR LADDER BELOW THE HATCH.
6. ALL HARDWARE SHALL BE ZINC-COATED.

### VAULT ACCESS OPENINGS NOTES:

1. IN ADDITION TO THE HATCHES SHOWN, VAULT ACCESS OPENINGS MUST BE PROVIDED SUCH THAT NO LOCATION WITHIN THE VAULT IS MORE THAN 50 FEET FROM AN ACCESS OPENING. ACCESS TO EACH "V" ON THE VAULT FLOOR MUST BE PROVIDED.
2. ACCESS OPENINGS MUST HAVE ROUND, SOLID LOCKING LIDS, OR 3 FOOT SQUARE, LOCKING DIAMOND PLATE COVERS.

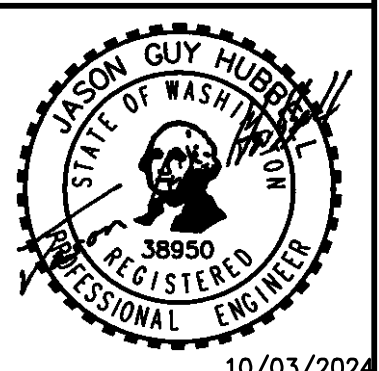
### DETENTION VAULT DATA:

MIN INSIDE TOP OF VAULT ELEV=	56.7
MAX W.S. ELEV=	55.5
STATIC W.S. ELEV=	50.2
SEE THIS SHEET AND C13 FOR DETAILS.	
DETENTION VAULT:	
LIVE STORAGE VOLUME REQUIRED=	143,488 C.F.
LIVE STORAGE VOLUME PROVIDED=	143,488 C.F.
AS-BUILT DETENTION VOLUME CONSTRUCTED=	_____ C.F.

Revision	Date	By	Chk.	Appr.
1	10/03/24	JSG	DL	JSG
2	03/05/24	JSG	DL	JSG

**VAULT DETAILS**  
**FORTRESS - PUYALLUP**

**FOR:**  
**CREF3 PUYALLUP OWNER LLC**  
**11611 SAN VICENTE BLVD**  
**10TH FLOOR**  
**LOS ANGELES, CA 90049**



Scale:	Horizontal	Vertical
	1"=10'	N/A
Designed	DL	
Drawn	RDC	
Checked	DL	
Approved	JGH	
Date	8/23/23	

**Barghausen Consulting Engineers, Inc.**  
18215 72nd Avenue South  
Kent, WA 98032  
425.251.6222  
[barghausen.com](http://barghausen.com)

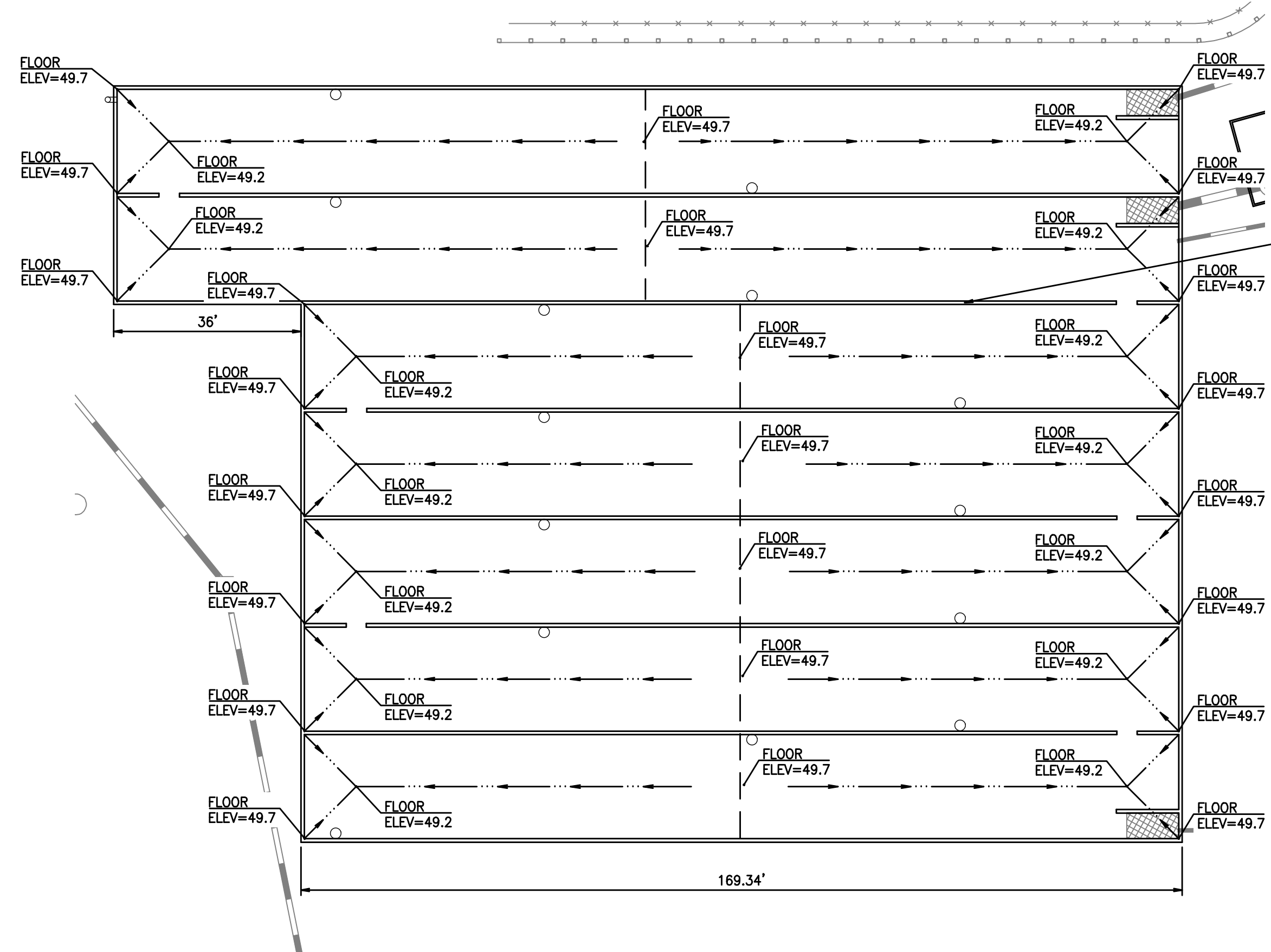
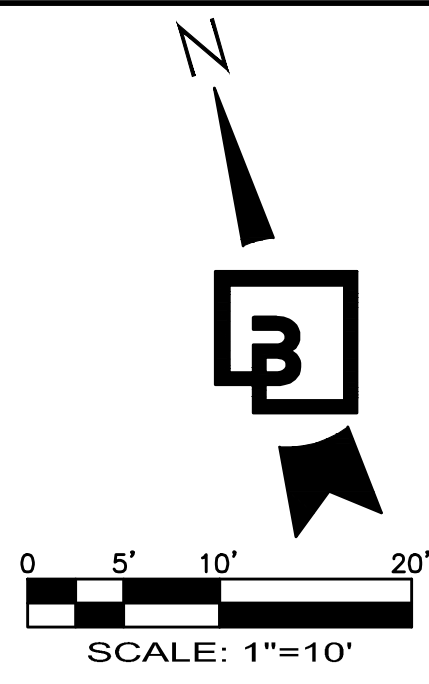
**APPROVED**  
By: \_\_\_\_\_  
CITY OF PUYALLUP  
DEVELOPMENT ENGINEERING  
DATE: \_\_\_\_\_  
**NOTE:** THIS APPROVAL IS VOID AFTER 180 DAYS FROM APPROVAL DATE.  
THE CITY WILL NOT BE RESPONSIBLE FOR ERRORS AND/OR OMISSIONS ON THESE PLANS.  
FIELD CONDITIONS MAY DICTATE CHANGES TO THESE PLANS AS DETERMINED BY THE DEVELOPMENT ENGINEERING MANAGER.



Job Number: **22085**  
Sheet: **C12** of **34**

# Vault Details

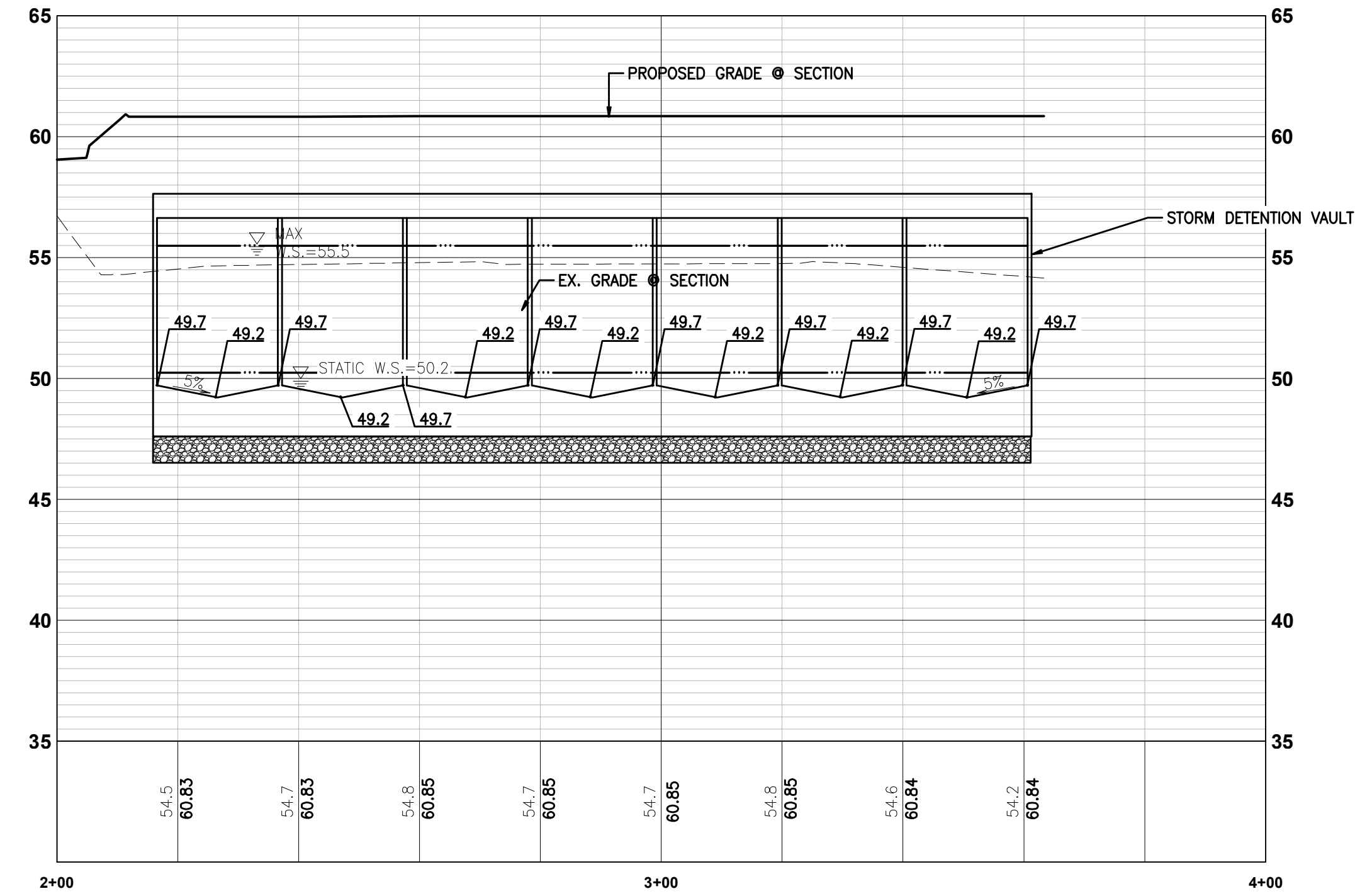
PRFO20240367



**STORM VAULT FLOOR PLAN**

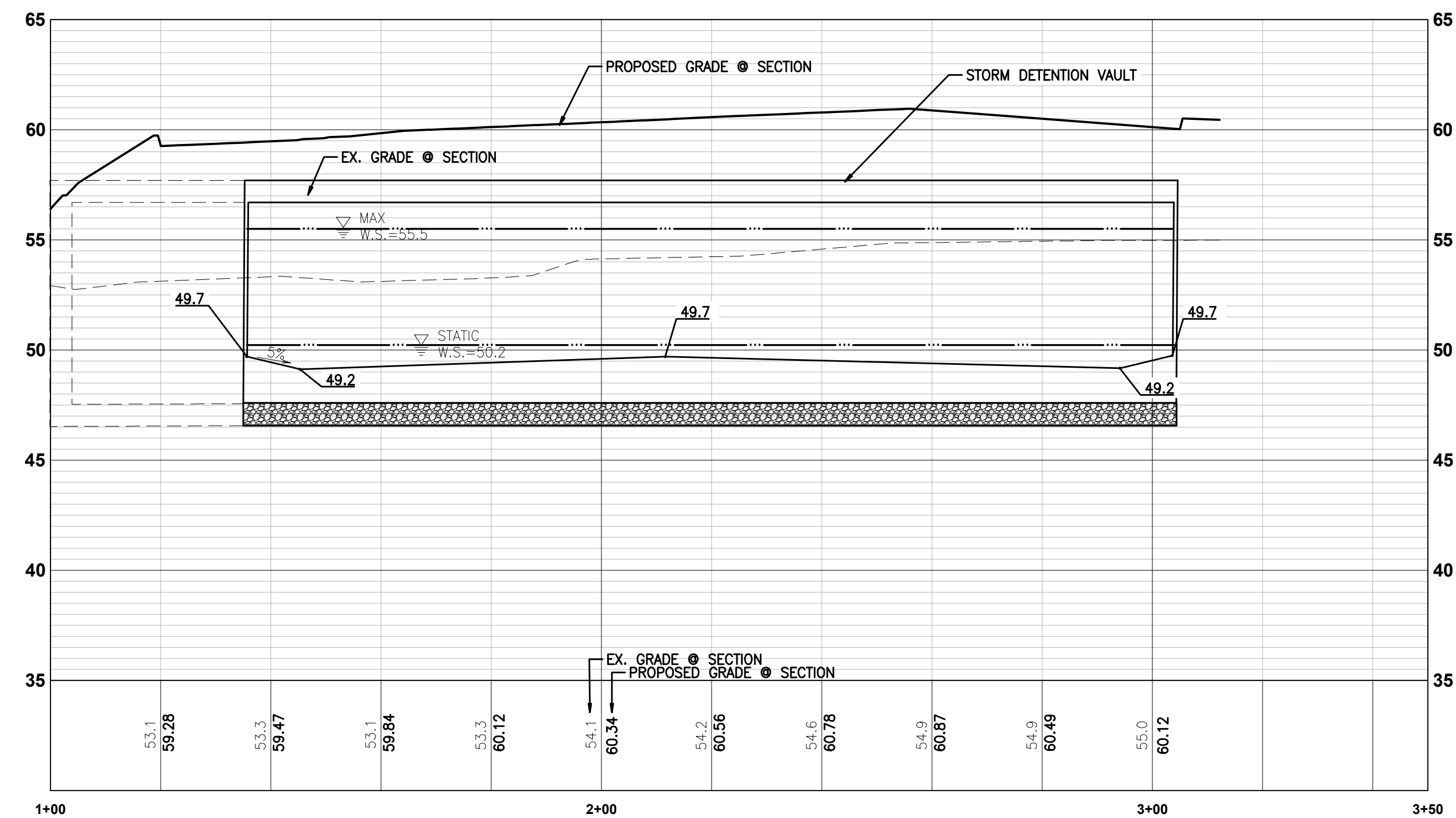
1"=20'

STORM DETENTION VAULT  
100'x168' + 40'x204'x7.5' INSIDE CLEAR  
DIMENSIONS  
INSIDE TOP ELEV=56.7  
MAX WS=55.5  
STATIC WS=50.2  
INSIDE BOTTOM=49.2±  
5.3" LIVE STORAGE  
SEE SHT C13 FOR ADDITIONAL DETAILS



**VAULT SECTION V1-V1**

1"=20' HORIZ, 1"=5' VERT



**VAULT SECTION V2-V2**

1"=20' HORIZ, 1"=5' VERT

**APPROVED**

BY: CITY OF PUYALLUP  
DEVELOPMENT ENGINEERING

DATE:

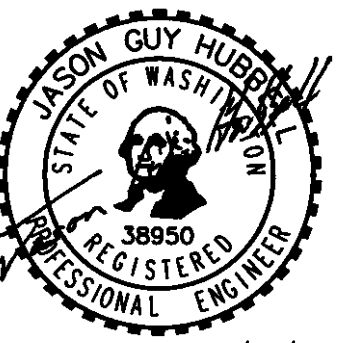
NOTE: THIS APPROVAL IS VOID  
AFTER 180 DAYS FROM APPROVAL  
DATE:  
THE CITY WILL NOT BE  
RESPONSIBLE FOR ERRORS  
AND/OR OMISSIONS ON THESE  
PLANS.  
FIELD CONDITIONS MAY DICTATE  
CHANGES TO THESE PLANS AS  
DETERMINED BY THE  
DEVELOPMENT ENGINEERING  
MANAGER.

No.	Date	By	Chk.	Appr.	Revision
1	10/03/24	JSG	DL	JSG	RESPONSE TO CITY COMMENTS, DATED APRIL 12, 2024
2	03/05/24	JSG	DL	JSG	RESPONSE TO CITY COMMENTS, DATED FEBRUARY 06, 2024

**VAULT DETAILS**

Title:

FOR: CREF3 PUYALLUP OWNER LLC  
11611 SAN VICENTE BLVD  
10TH FLOOR  
LOS ANGELES, CA 90049

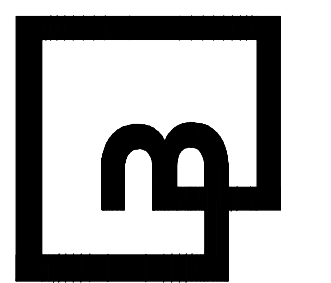


10/03/2024

Scale:  
Horizontal 1"=10'  
Vertical N/A

Designed: DL  
Drawn: RDC  
Checked: DL  
Approved: JGH  
Date: 8/23/23

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Job Number: **22085**  
Sheet: **C13** of **34**



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